REMARKS

Claim 1 has been amended to more clearly identify subject matter for which applicants seek protection. Claims 40-43 have been canceled to expedite prosecution of the application. Claims 36-39 have been canceled in a previous Response. Therefore, claims 1-35 are currently pending in this application.

Rejections under 35 U.S.C. § 112

Claims 1-15 stand rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully submit that amended claim 1 traverses the rejection.

Claims 1-15 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Applicants respectfully submit that amended claim 1 traverses the rejection.

Rejections under 35 U.S.C. § 102

Claims 16 and 19-23 stand rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,757,771 to Li. Applicants respectfully disagree.

Independent claim 16 recites a method for transmitting packets, comprising:

"receiving packets in an order, each packet being a first packet type or a second packet type; and

transmitting the received packets in an order that is different from the order in which the packets were received based on whether the packets are a first packet type or a second packet type, unless the transmitting of a packet in the different order would delay the transmitting of a packet more than a certain amount of time."

That is, the method includes transmitting packets in an order different than an order of how the packets are received <u>unless transmitting in a different order "would delay the transmitting of a packet more than a certain amount of time"</u> (emphasis added).

The Office Action claims that Li discloses such an element, and cites Figure 3, column 9 – column 12, or column 4, lines 30-44 of Li as support. Applicants respectfully disagree. Li is directed to a queue management system that serves variable bit rate traffic and constant bit rate traffic at different service levels in an ATM switch. Li prioritizes data sub-queues, allowing data sub-queues having higher output rankings to send data out before sub-queues having lower output rankings (Li at 5:20-30). Additionally, beginning at column 9, line 14, Li discloses that "a second preferred embodiment of the present invention includes a buffer management system and method that provides each of the data sub-queues with a minimum bandwidth so that data sub-queues having a low level of priority are not continuously preempted by data sub-queues having higher output priorities."

Li discloses that the output priority and purge priority of a data sub-queue is determined based on whether the sub-queue contains variable bit rate traffic or constant bit rate traffic, and discloses a reason for the priority: "voice traffic generally has a constant bit rate, or CBR, and can tolerate some data losses, but is more sensitive to transmission delay. In contrast, data traffic generally has a variable bit rate, or VBR, and has a low tolerance for data loss, but is less sensitive to transmission delay" (Li at 1:14-26).

As described above, Li is concerned with selecting traffic to be transmitted based on whether the traffic is sensitive to transmission delay (such as variable bit rate traffic) or sensitive to data loss (such as constant bit rate traffic). That is, Li discloses selecting which traffic to transmit based on characteristics of the data stream (constant bit rate versus variable bit rate). Li does not discuss selecting which traffic to transmit based on the type of packet, as is recited in claim 16. (The actual content of the data stream in Li may vary widely. For example, CBR data may be audio or video data, and may contain different types of packets.) Nor does Li discuss selecting a transmission order based on the

amount of delay of transmitting a packet, as is recited in claim 16. For at least these reasons, Li does not anticipate claim 16.

Therefore, applicants respectfully submit that independent claim 16 and dependent claims 19-23 are patentable over Li, and request their allowance.

Rejections under 35 U.S.C. § 103

Claims 1-15, 17, 18, and 24-43 stand rejected under 35 U.S.C. 103(a) as being unpatentable according to the following table:

Claim 1-8, 12, 14-23, 25-30, 32 and 34-35	Burnett (US 5,703,875) and Li
Claim 9	Burnett, Li, and Ellis (US 5,497,371)
Claims 10-11, 31	Burnett, Li, and Cidon (US 5,343,473)
Claims 13, 24, 33	Burnett, Li and Howe (US 2003/0189922)
Claims 17, 18	Li and Official Notice
Claims 40-43	Boggs (US 5,959,994)and Burnett

Independent claim 1 stands rejected over Li and Burnett. Claim 1 recites, *inter alia*, a method for transmitting packets, comprising:

"determining whether the data packet has been delayed more than a certain amount of time;

when it is determined that the data packet has been delayed more
than the certain amount of time, selecting the data packet."

As discussed above, Li does not vary transmission based on packet types,
nor does Li select a data packet for transmission when it is determined that the
data packet has been delayed more than the certain amount of time.

Burnett discloses an integrated control and data network switch that communicates
data messages and control messages. Burnett, however, does not disclose or suggest
selecting a data packet for transmission over a control packet. For example, Burnett
explains that "in a real-time embedded processing system, a capability is needed for
immediately passing a control message (command or status) across the network, even if
some of the links along the message path are currently transmitting data messages"
(Burnett at 1:18-23). Burnett provides such a capability, stating "If there are control
message words waiting to be transmitted over link, they are given priority over any data
message words that are ready for transmission over the same link" (Burnett at 1:44-48,
emphasis added). Therefore, in the integrated control and data network of Burnett, control
messages are always sent before any waiting data messages.

Further evidence of Burnett's approach to sending control messages may be found
in the discussion of structural changes of the network of Burnett when control messages
are to be transmitted: "Arrival of a control message at a switch 10 changes the crossbar
state for the output port 16 needed by the control message, unless the output port is
already in use, transmitting another control message. The newly arrived control message
preempts any data message currently using that output port 16...after the control message
passes through the core crossbar 15, the crossbar sate reverts so that the data message
can resume" (Id., 3:8-17). That is, when a control message arrives, the crossbar state of
the output port changes to a state that only allows the output of control messages. Only in
the absence of any control message does the crossbar state "revert" back to a state that
allows the output of data messages.

Burnett, therefore, does not discuss selecting a data packet over a control packet, and does not discuss selecting a data packet when it is determined that the data packet has been delayed more than a certain amount of time, as recited in claim 1. Therefore, claim 1 cannot be obvious over the combination of Burnett and Li as the combination does not disclose or suggest each and every element of the claim.

Furthermore, one of ordinary skill in the art would not be motivated "to apply a method and system for transmitting a low priority packet before a high priority packet if the waiting time of the low priority packet is [sic] exceeds a delay threshold as disclosed by Li into the method and system of Burnett" (Office Action at page 6), as Burnett clearly teaches away from such a combination. As discussed above, Burnett discloses a system that always chooses control messages over data messages. Therefore, one of ordinary skill in the art would not be motivated to combine Burnett and Li as Burnett is concerned only with transmitting control messages before data messages, and structurally cannot accommodate prioritizing data messages over control messages.

Independent claim 25 stands rejected over Li and Burnett. Claim 25 recites similar features to those of claim 1, including, *inter alia*:

> "a transmit component that retrieves the packets from the memory,
> wherein the retrieving is associated with a selection algorithm that if each
> queue contains a packet the selection algorithm selects a control packet
> for retrieval unless a certain condition is satisfied in which case the
> selection algorithm selects a data packet for retrieval and that transmits
> the retrieved packets in order of retrieval."

Because claims 1 and 25 contain similar elements, applicants submit that claim 25 is patentable for at least the reasons discussed with respect to claim 1 above. Applicants respectfully submit that claims 1, 25 and any dependent claims are therefore patentable over the cited references, and request their allowance.

Claims 40-43 have been canceled so the rejection of these claims is therefore moot.

Conclusion

In view of the above amendment and remarks, applicants believe the pending application is in condition for allowance.

Applicants submit an extension of time fee and believes no additional fee is due with this response. However, if any additional fee is due, please charge our Deposit Account No. 50-0665, under Order No. 594728813US from which the undersigned is authorized to draw.

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Respectfully submitted,

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